Public Notice

US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice No.
CENAP-OP-R-2007-483-11

Date
OCT 17 2007

Application No.

File No.

In Reply Refer to:
REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: Pennsylvania Department of Transportation

AGENT: A.D. Marble & Company
375 East Elm Street
Suite 200
Conshohocken, Pennsylvania 19428

WATERWAY: Neshaminy Creek

LOCATION: The proposed S.R. 0202, Section 700 Parkway will extend from S.R. 0063 (Welsh Road), Montgomery Township, Montgomery County through Warrington and New Britain Townships to the S.R. 0611 Bypass in Doylestown Township, Bucks County, Pennsylvania. The proposed wetland compensatory mitigation site for unavoidable impacts to waters of the United States, including wetlands, is located at the intersection of Kansas Road and County Line Road, Warrington Township, Bucks County, Pennsylvania.

ACTIVITY: The Pennsylvania Department of Transportation (PennDOT) has applied for a Department of the Army permit to discharge fill material into federally regulated waters of the United States, including wetlands (waters of the U.S.), to facilitate construction of the proposed S.R. 0202, Section 700 Parkway, a limited access, 8.6 mile long new alignment roadway with an operating speed of 40 miles per hour. According to the applicant, from Welsh Road to Horsham Road the Parkway will consist of two 11-foot travel lanes and one 5-foot paved shoulder in each direction. From Horsham Road to the S.R. 0611 Bypass the Parkway will consist of one 11-foot travel lane and one 5-foot paved shoulder in each direction. A 12-foot Shared Use Path for pedestrian and bicycle use will be constructed both within the Parkway's approximately 300-foot right of way for the length of the Parkway and its own approximately 15 to 20 foot wide clear zone.

The proposed project will result in the permanent discharge of fill material into 8.95 acres of waters of the U.S. at 32 wetland and 58 waterway locations (4.88 acres of forested wetlands, 0.64 acres of shrub/scrub wetlands, 2.08 acres of emergent wetlands, 0.08 acres of perennial streams and 1.32 acres of intermittent streams). Wetland impacts will result primarily from construction of the roadway surface and storm water management facilities. Stream impacts will result primarily from culvert installations/extensions of existing stream culverts and their associated stream relocations, as well as the construction of several bridge spans.

The proposed project will result in the temporary disturbance of 3.17 acres of waters of the U.S. at 10 wetland and 17 waterway locations (1.92 acres of forested wetlands, 0.23 acres of shrub/scrub wetlands, 1.02 acres of emergent wetlands, 0.55 acres of perennial streams, 0.27 acres of intermittent streams), primarily as a result of access for construction activities (roads, stream crossings, staging areas) and installation of temporary erosion and sediment control measures. According to the applicant, all temporary impact areas will be restored in their preconstruction contours and conditions following completion of construction activities.

According to the applicant, all material excavated as a result of project construction will either be used as project fill or disposed of at an upland, non-wetland site to be determined by the project contractor. Any necessary additional project fill will be obtained from a borrow area to be determined by the project contractor.

The applicant proposes to compensate for the unavoidable loss of waters of the U.S. as a result of project construction by implementing a compensatory mitigation plan at the proposed 89 acre Kansas Road Mitigation Site adjacent to Little Neshaminy Creek, of which Penn DOT owns 83.7 acres in fee simple and holds an easement on 4.4 acres. The plan provides for the creation of approximately 9.5 acres of forested wetlands from uplands, enhancement of 5.4 acres of formerly farmed wetland and 2.5 acres of upland habitats, and the preservation of 30.8 acres of wetlands, 43.3 acres of uplands and 5660 linear feet of perennial and intermittent streams.

According to the applicant, the proposed project will take three years to complete and will be constructed in three sections: Sections 701, 711 and 721. Final project plans have been prepared for Section 701. The applicant has indicated that design activities have been advanced in Sections 711 and 721 such that they do not anticipate that any additional impacts to waters of the U.S. will occur during final design beyond those that appear on preliminary design plans and that they will continue to explore opportunities to minimize those impacts to the maximum extent possible. As final project plans for Sections 711 and 721 become available, the applicant will recalculate the permanent and temporary impacts to waters of the U.S. that will occur to facilitate project construction and submit that information to the U.S. Army Corps of Engineers (Corps) for review and approval, accompanied by final project plans.

PURPOSE: The applicant's stated purpose of the proposed project is to "provide a complete network of local roads to help alleviate congestion on existing S.R. 0202 and parallel roadways and to preserve and enhance the existing communities and natural resources within the study area."

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public, Federal, State, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

A complete set of project plans are available for review at the following locations during the following business hours:

LOCATION	HOURS
PennDOT Engineering District 6 7000 Geerdes Boulevard King of Prussia, PA 19406 Ms. Madeline Fausto, Project Manager	8:00am – 4:30pm M-F Except holidays
Upper Gwynedd Township One Parkside Place North Wales, PA 19454 Mr. Len Perrone, Township Manager	8:00am – 4:30pm M-F Except holidays

Lower Gwynedd Township P.O. Box 625 1130 N. Bethlehem Pike Spring House, PA 19477 Mr. Larry Comunale, Township Manager	8:00am - 5:00pm M-F Except holidays
Montgomery Township Montgomery Township Municipal Building 1001 Stump Road Montgomeryville, PA 18936-9605 Mr. John Nagel, Township Manager	8:00am – 4:15pm M-F Except holidays
New Britain Borough 45 Keeley Avenue New Britain, PA 18901 Ms. Robin Trymbiski, Borough Manager	9:00am – 3:00pm M-F Except holidays
New Britain Township 207 Park Avenue Chalfont, PA 18914 Mr. Robert C. Bender, Acting Township Manager	8:00am-4:00pm M-F Except holidays
Doylestown Borough Borough Hall 57 W. Court Street Doylestown, PA 18901 Mr. John H. Davis, Borough Manager	8:30am – 4:30pm M-F Except holidays
Warrington Township Township Administration Building 852 Easton Road Warrington, PA 18976 Mr. Tim Tieperman, Township Manager	8:30am - 4:30pm M-F Except holidays
Montgomery County Planning Commission Swede and Airy Streets P.O. Box 311 Norristown, PA 19404 Mr. Leo Bagley	8:00am - 4:15pm M-F
Bucks County Planning Commission The Almshouse Neshaminy Manor Center 1260 Almshouse Road Doylestown, PA 18901 Ms. Lynn T. Bush, Executive Director	8:00am - 5:00pm M-F Except Holidays

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

The Corps, in consultation with PennDOT and the Pennsylvania State Historic Preservation Officer (SHPO) has determined that two National Register of Historic Places (National Register) listed or eligible for listing above ground historic properties are located within the Corps' permit area for the project. The Corps, in consultation with PennDOT and SHPO, has determined that the proposed project will have an adverse effect on both of the historic properties within the permit area (McHenry Farmstead, Smith Farmstead) because the project will alter the characteristics that qualify the resources for inclusion in the National Register in a manner that will diminish their integrity.

The Corps, in consultation with PennDOT and SHPO, has determined that five National Register listed or eligible for listing below ground archaeological resources occur within the Corps' permit area for the project. The Corps, in consultation with PennDOT and SHPO, has determined that the proposed project will not have an adverse effect on four of those resources because the portions of the resources that will be directly affected by the project do not have the potential to yield significant new information. One site has been determined eligible for listing on the National Register because it is a rare example of an unplowed upland Middle Woodland site and has the potential to yield significant new information on Native American lifeways in southeastern Pennsylvania during the Middle Woodland period. PennDOT is proposing to mitigate the adverse effect of the project on the site by implementing a data recovery investigation within its boundaries and by conducting public outreach.

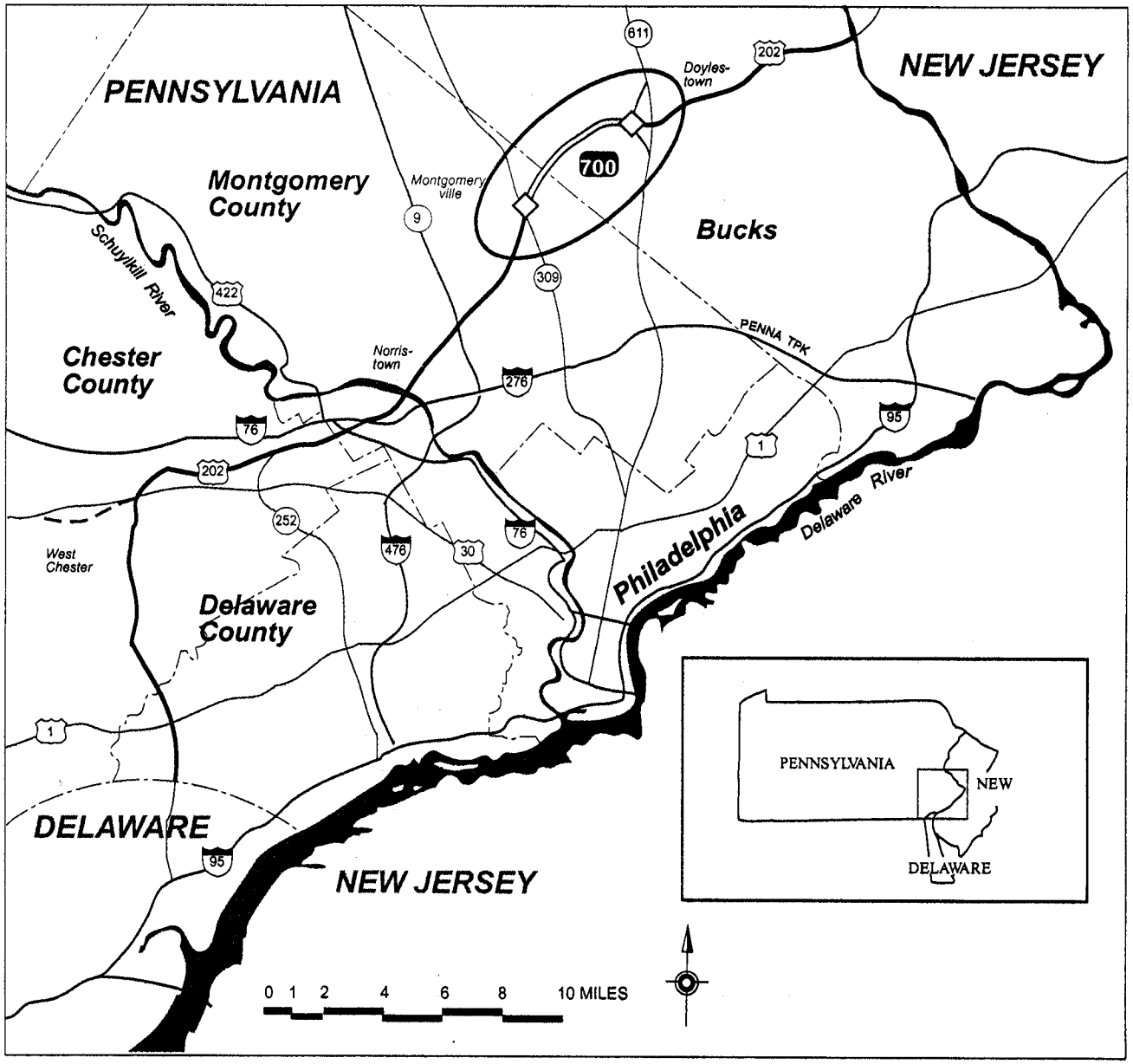
In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

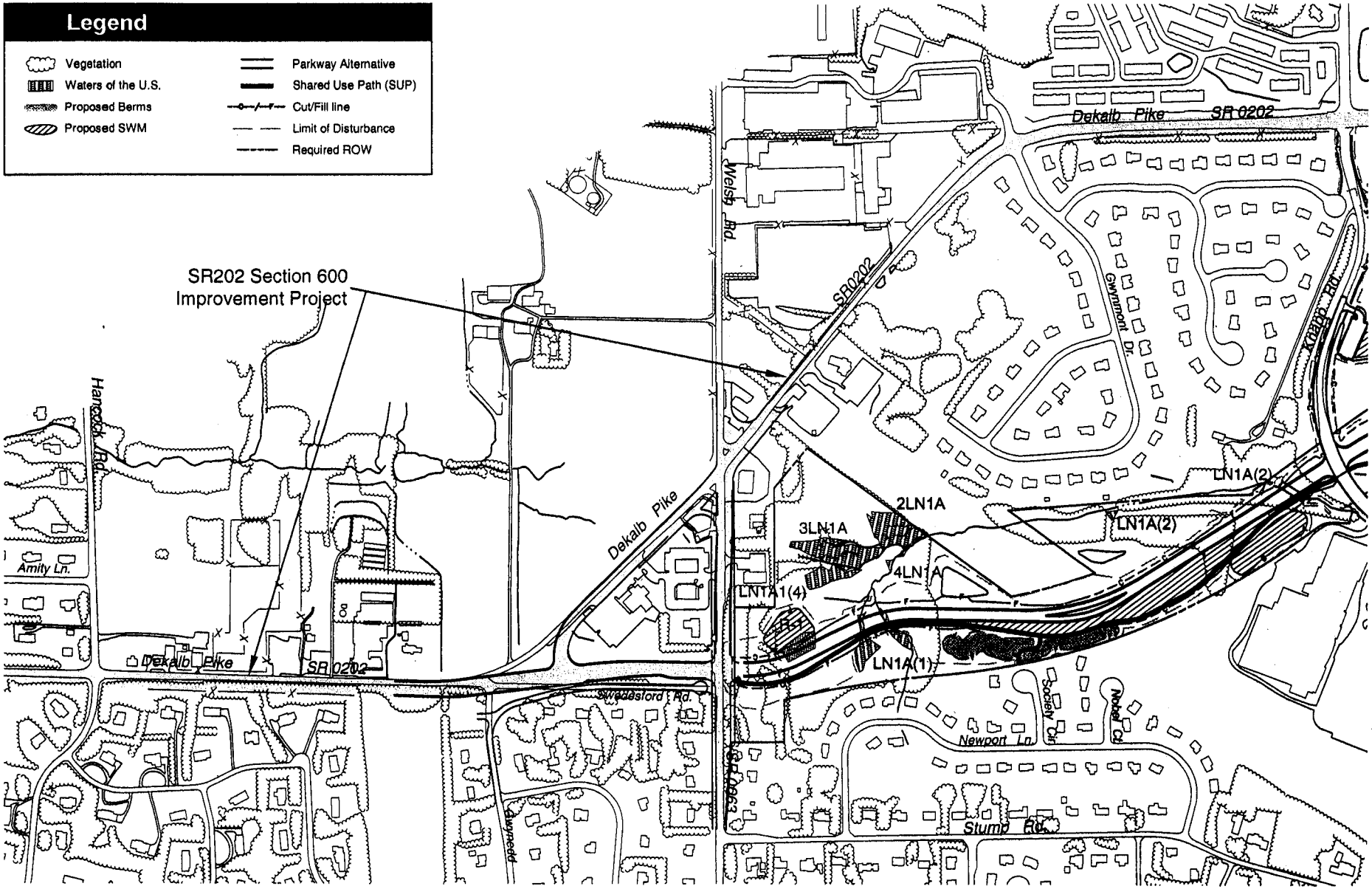
Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Jacqueline Winkler at (215) 656-5833 between the hours of 1:00 and 3:30 p.m. or writing this office at the above address.

Frank J. Cianfrani
Chief, Regulatory Branch

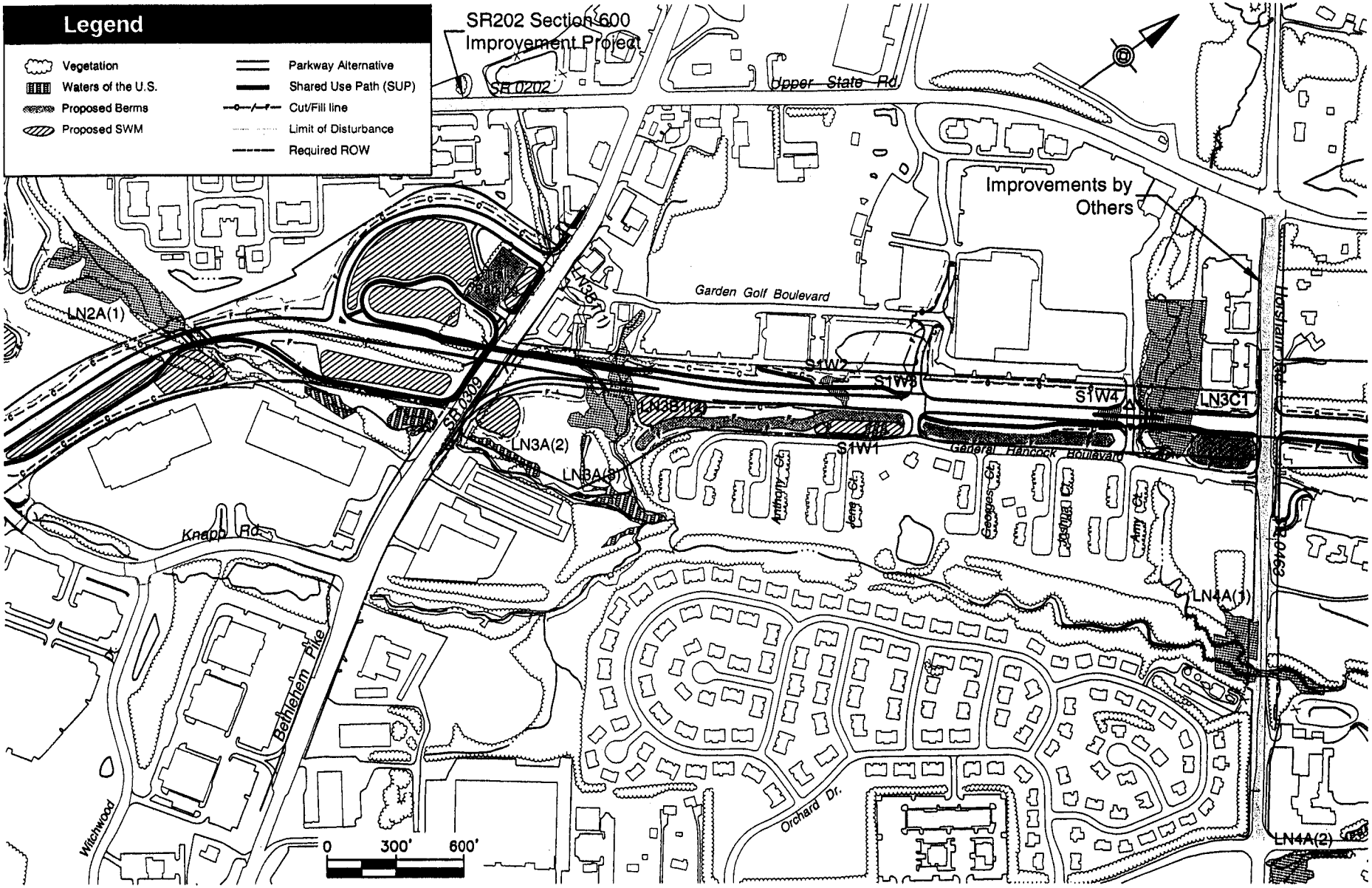


The US 202 Corridor



Section 701

Figure U.2A



Section 701

Figure U.2B

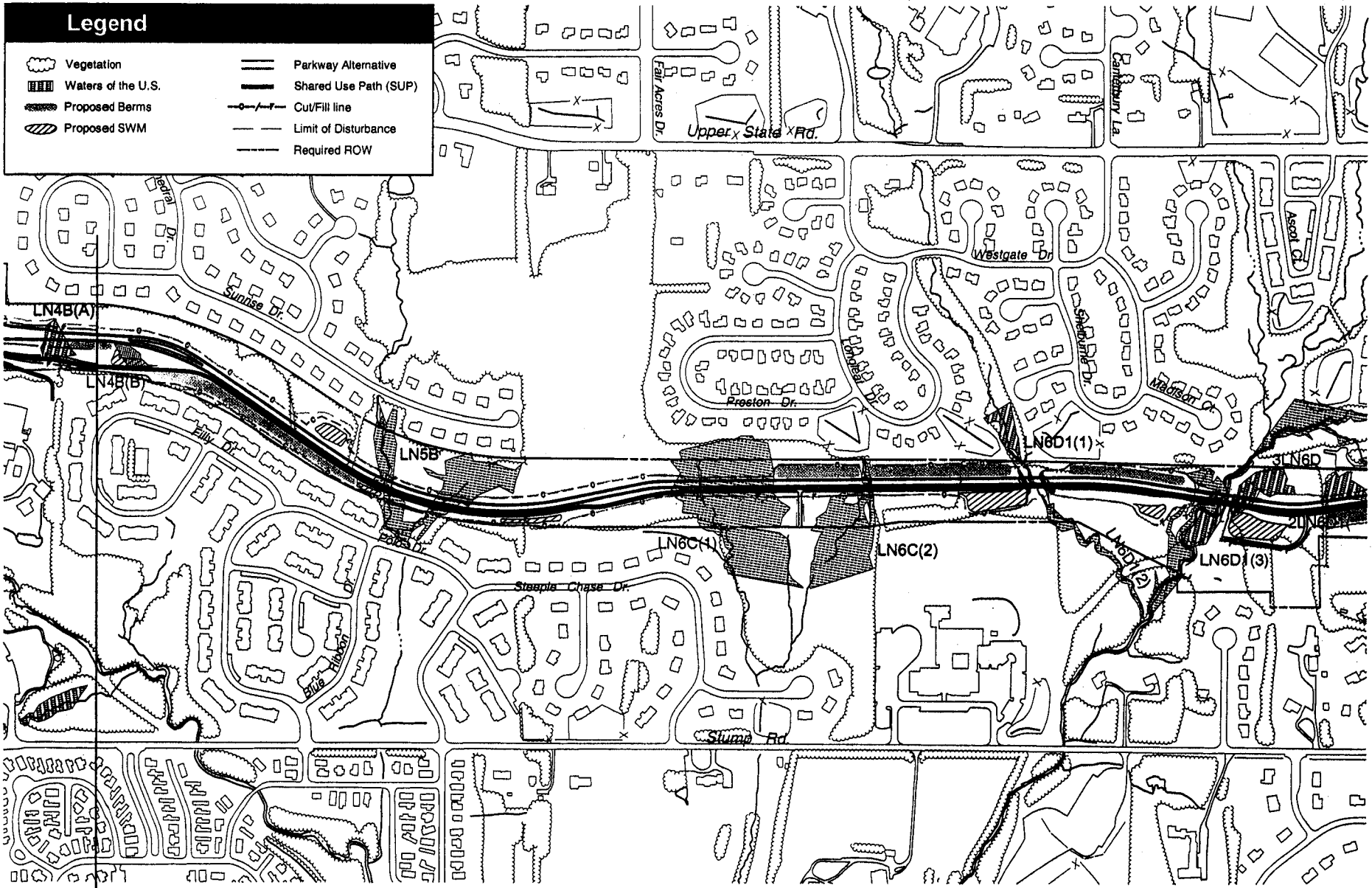

Legend
Vegetation
Waters of the U.S.
Proposed Berms
Proposed SWM
Parkway Alternative
Shared Use Path (SUP)
Cut/Fill line
Limit of Disturbance
Required ROW
Upper State Rd.
Fair Acres Dr.
Canterbury La.
Westgate Dr.
Ascot Dr.
Sunrise Dr.
Tendrel Dr.
Sandburne Dr.
Madison Dr.
Preston Dr.
Filly Dr.
Steeple Chase Dr.
Blue Haven
Stump Rd.
LN4B(A)
LN4B(B)
LN5B
LN6C(1)
LN6C(2)
LN6D1(1)
LN6D1(2)
LN6D1(3)
3LN6D
2LN6D
Section 701
Section 711

Figure U.2C

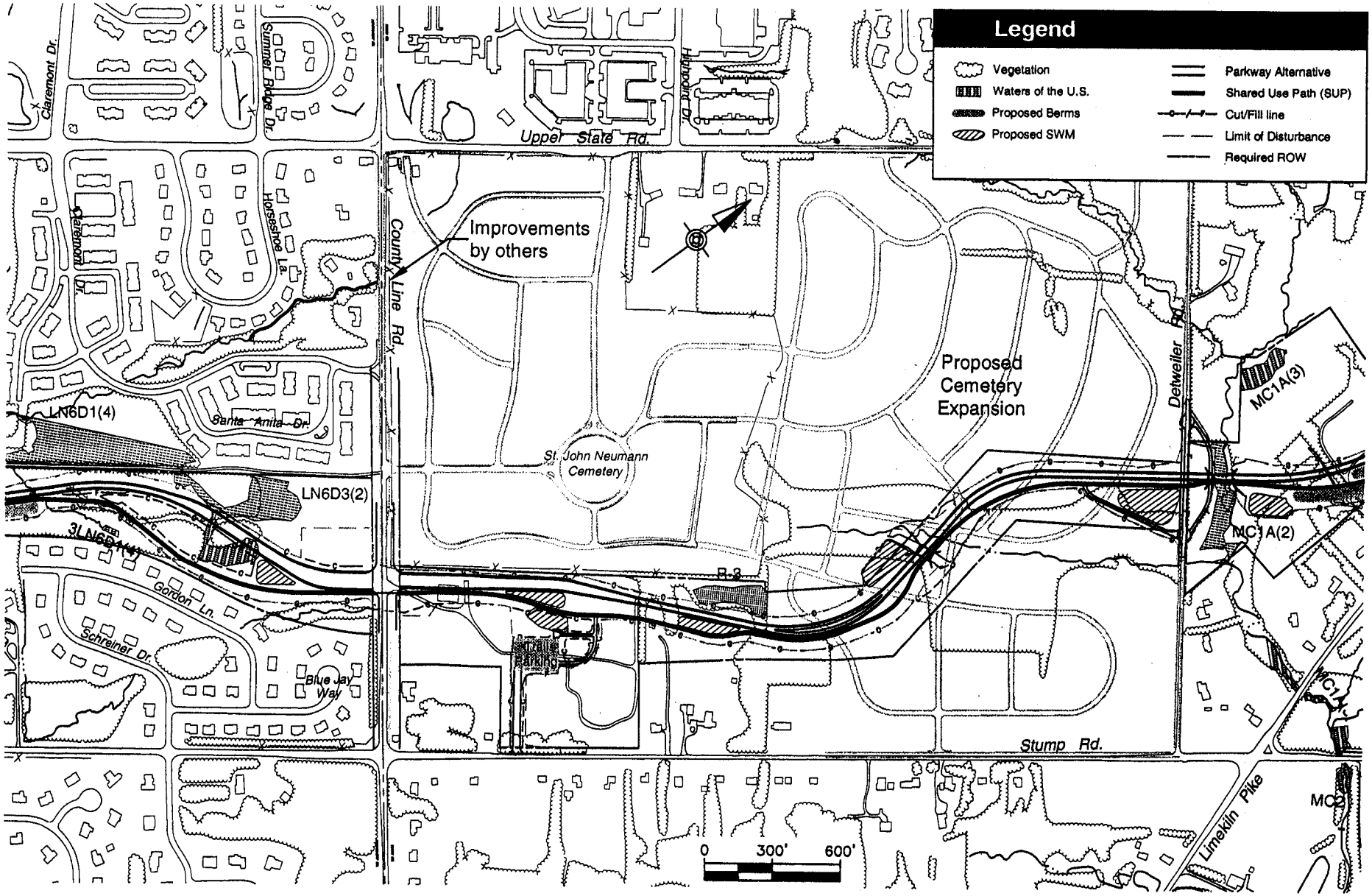


Figure U.2D

Section 711

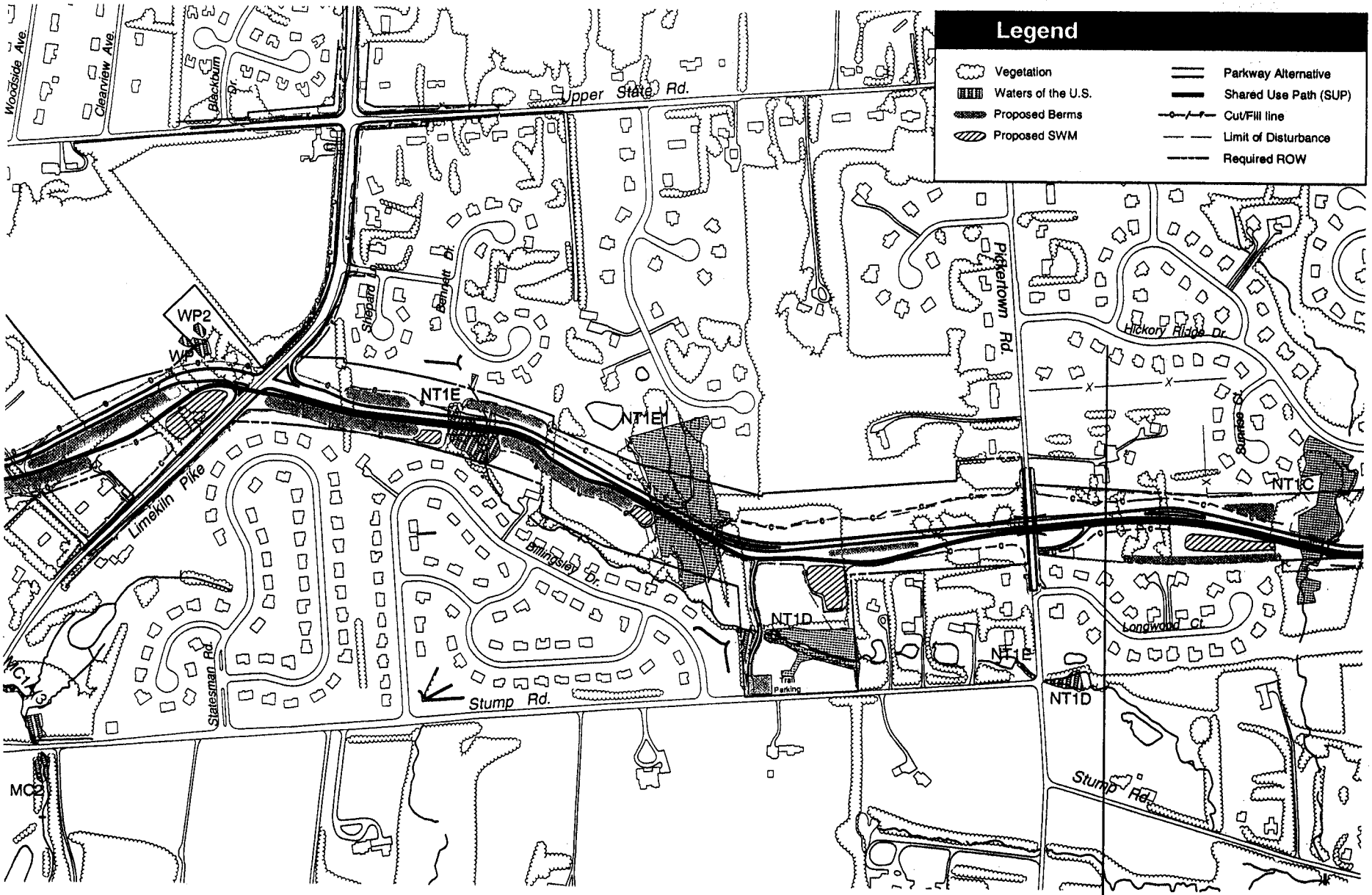

Legend
Vegetation
Waters of the U.S.
Proposed Berms
Proposed SWM
Parkway Alternative
Shared Use Path (SUP)
Cut/Fill line
Limit of Disturbance
Required ROW
Upper State Rd.
Woodside Ave.
Clearview Ave.
Blackburn Dr.
Burgess Dr.
Bennett Dr.
Pickertown Rd.
Hickory Ridge Dr.
Deering Dr.
WP2
WP1
NT1E
NT1H
NT1C
NT1D
Limekiln Pike
Billingsley Dr.
Longwood Ct.
Statesman Rd.
Stump Rd.
Trail Parking
MC1
MC2
Section 711
Section 721

Figure U.2E

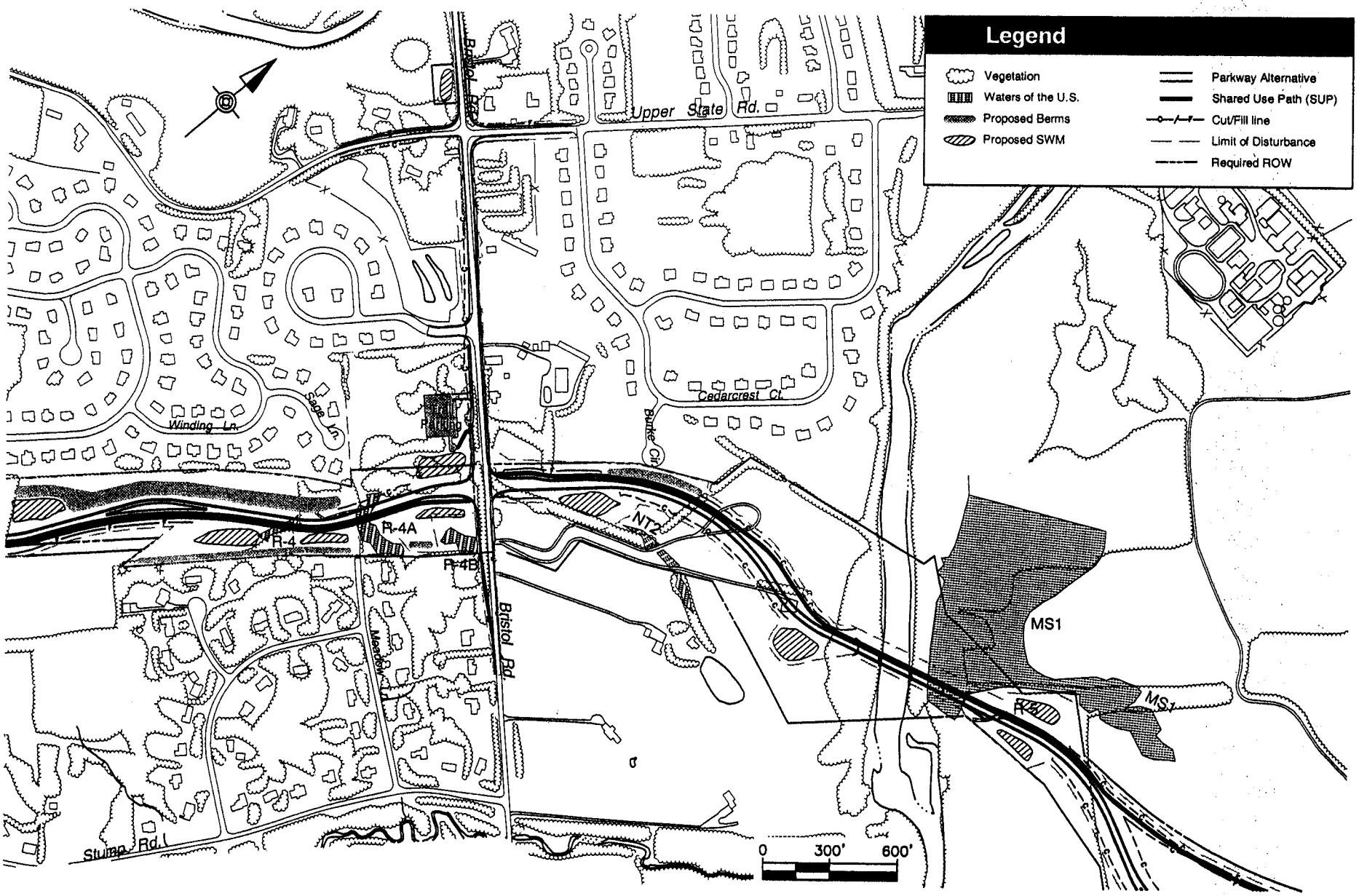
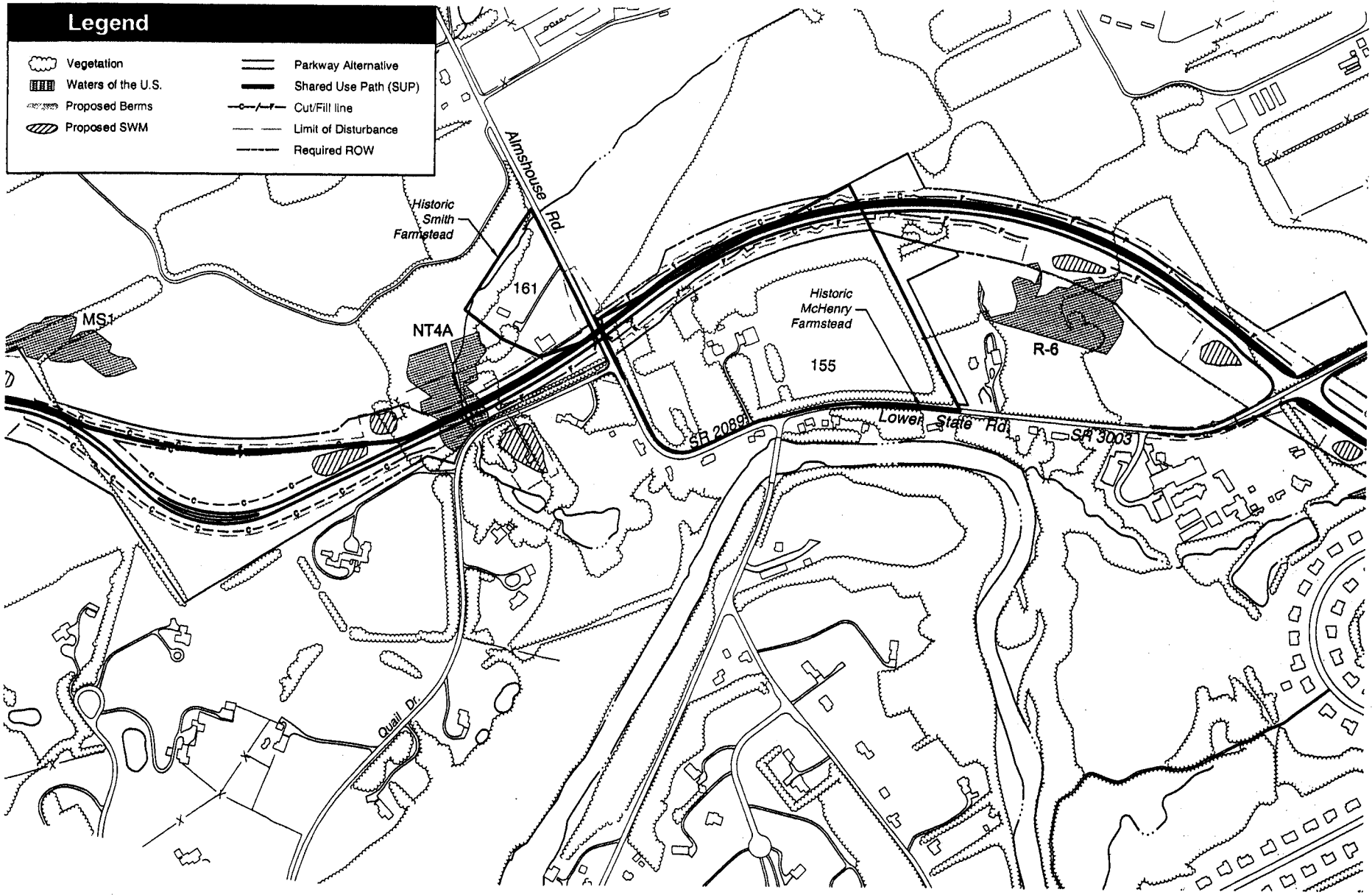


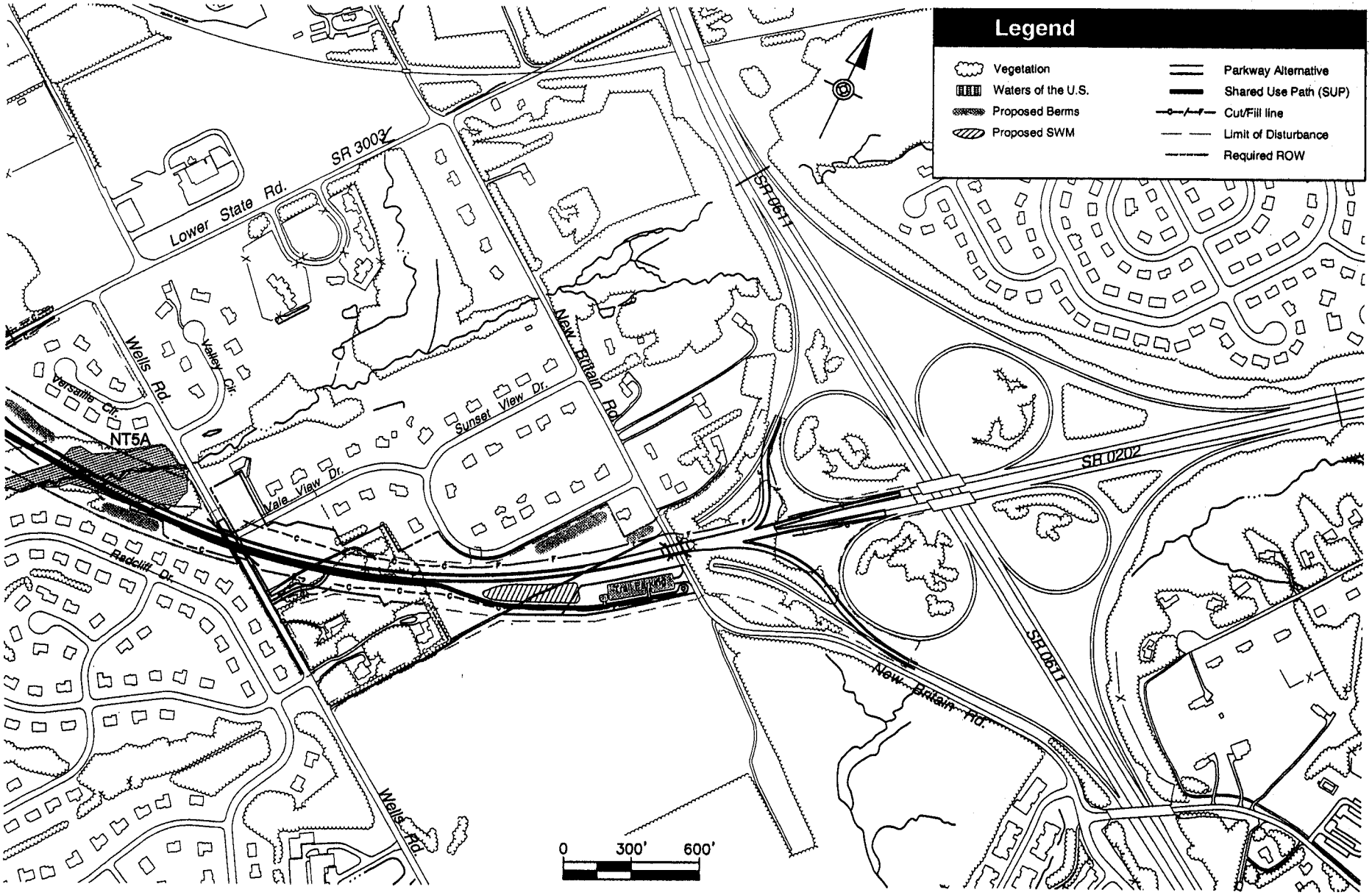
Figure U.2F

Section 721



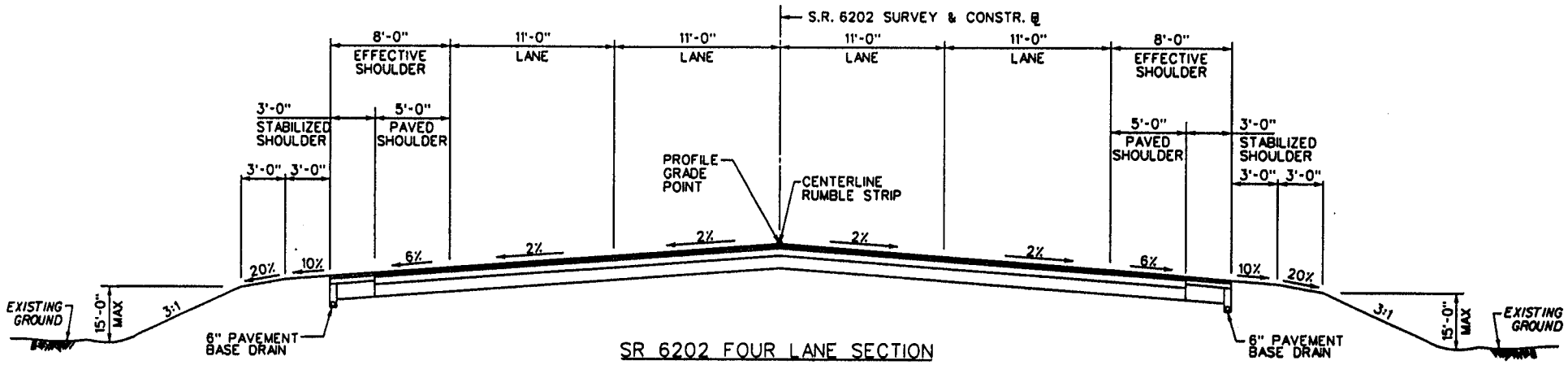
Section 721

Figure U.2G

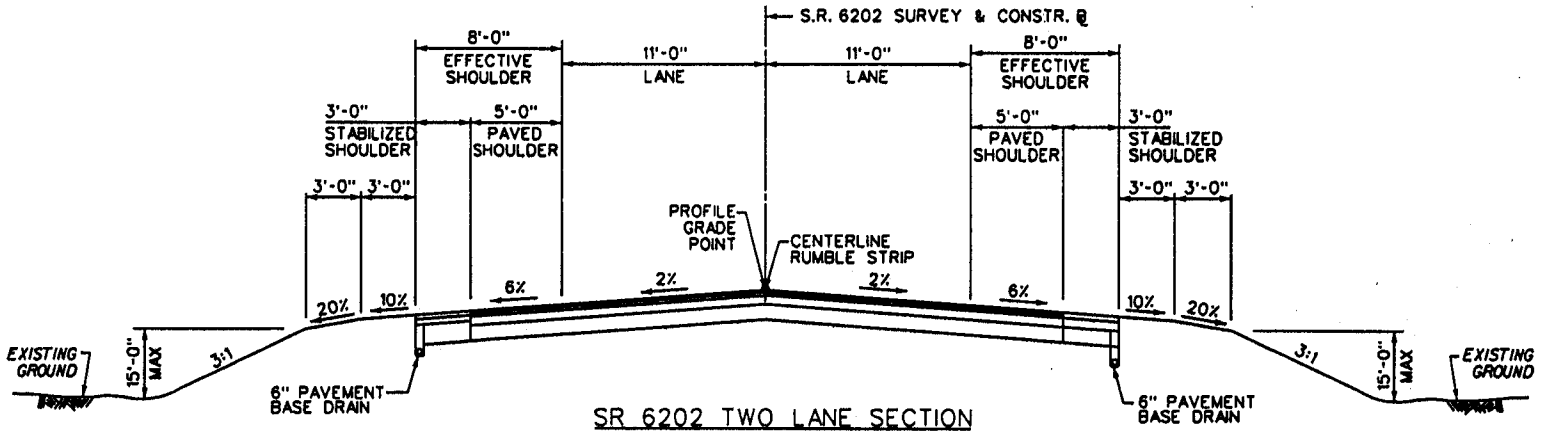


Section 721

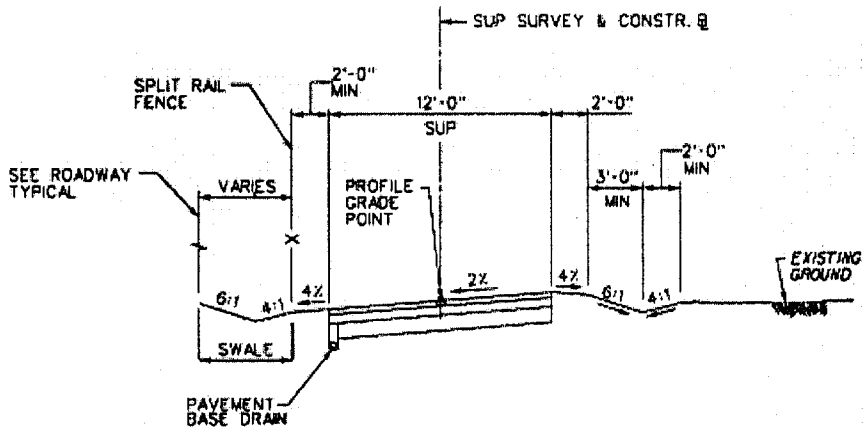
Figure U.2H



SR 6202 FOUR LANE SECTION



SR 6202 TWO LANE SECTION



SHARED USE PATH TYPICAL SECTION

Summary of Parkway Impacts	
Resource	**Potential Impacts**
Wetlands	Impact to 32 of 44 wetlands in the right-of-way Loss of 7.6 acres
Surface Water & Water Quality – Streams	58 waterway crossings 329 linear feet (0.08 acres) of permanent impact to perennial streams 12,023 linear feet (1.32 acres) of permanent impact to intermittent streams
Endangered and Threatened Species	No impact
Geology, Groundwater & Soils	Addition of approximately 100 acres of impervious surface Potential increases in erosion in some locations
Floodplains	No increase in backwater and no significant encroachment in floodplains
Vegetation and Wildlife	Unavoidable loss of 26 acres of riparian corridor with high functional integrity
Farmlands	Conversion of approximately 36 acres of prime agricultural lands
Potential Waste Sites	No impacts
Air Quality	Localized and regional air quality will be met
Noise	In 26 noise sensitive areas studied: 1) one site approached but did not exceed, the level considered for noise abatement; 2) no sites had project levels in excess of 10 dBA over existing levels
Land Use	223 acres of land to be acquired (32 residential and 8 commercial acquisitions) 173 acres acquired previously (57 residential and 7 commercial acquisitions)
Environmental Justice	No impact
Employment & Economic Development	8 commercial property acquisitions
Municipal Finance	Annual property tax revenue for townships within the right-of-way are expected to be reduced between 1.0 and 1.6 percent
Community Facilities	The Shared Use Path will improve connectivity and access between public open space and other facilities Approximately 2 acres will be acquired from the St. John Neumann Cemetery and 14 acres from the adjacent proposed cemetery land
Historic Resources	Adverse Effect on the Smith Farmstead and the McHenry Farmstead
Archaeological Resources	Adverse Effect on the Neshaminy Creek Site 36BU402
Traffic and Transportation	Facility designed to reduce impacts of current and future traffic volume increases and patterns Daily traffic volume increases or reductions are dependent on locations on the network

Table 1. Summary of Waterway Impacts.

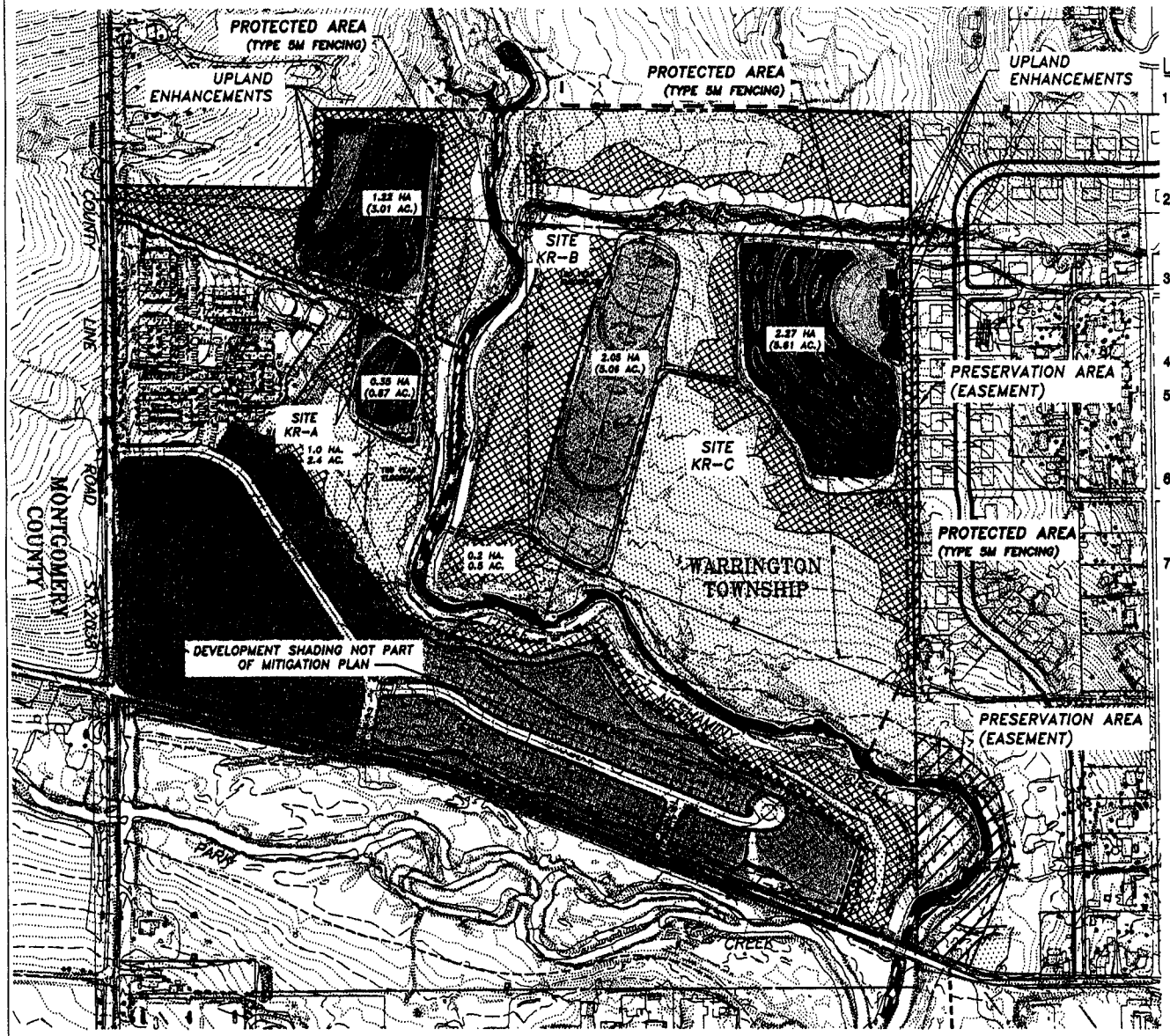
Design Section	Waterway System ID	Waterway Classification	Impacts Related To:	Plan Sheet No.	Station (approx.)		Permanent Impacts		Temporary Impacts	
					Begin	End	linear feet	acres	linear feet	acres
701	LN1A1-1	intermittent	Fill for Parkway	1	113+25	113+40	40	0.01	35	<0.01
	LN1A1-3	intermittent	Fill for Parkway	1	113+70	114+45	175	0.03	30	<0.01
	D-3	intermittent	Fill for Parkway and SUP	1	116+40	116+50	150	<0.01	40	<0.01
	WC-1	intermittent	Fill for Berm	2	120+40	120+87	110	<0.01	-	-
	D-4	intermittent	Fill for Parkway	2	128+70	130+30	375	0.08	140	0.01
	LN1A(2)	intermittent	Fill for Parkway - Culvert 1	2	132+66	133+34	250	0.20	-	-
	LN2A(1)	intermittent	Fill for Parkway - Bridge 2	4	146+86	147+48	170	0.02	170	0.03
	LN2A(1) Sewer	intermittent	Sewer Easement	4	147+00	147+35	-	-	30	<0.01
	LN3B2	intermittent	Pipe & Fill for Connector A	5	7+40	8+09	80	0.04	15	<0.01
			Fill for Parkway and SUP	5	164+00	166+75	210	0.08	10	<0.01
	D-5	intermittent	C/F for Parkway	6	173+95	174+80	170	<0.01	-	-
	D-6	intermittent	C/F for Parkway	6	177+58	178+80	340	0.02	-	-
	Z	intermittent	C/F for Horsham Widening	7	78+50	84+50	580	0.03	30	<0.01
	LN3C1	perennial	Fill for Parkway - Culvert 5	7	188+94	191+20	170	0.06	-	-
	WC-2	intermittent	Fill for Parkway and SUP	7	191+00	193+13	225	<0.01	20	<0.01
	D-9	intermittent	Fill for Parkway	8	201+50	201+65	30	<0.01	-	-
	LN3A(1)	perennial	Fill for SR 309 - Culvert Extension	9	556+00	556+06	35	<0.01	-	-
						Section 701 Subtotal	**3110**		**520**	
711	LN5B1	intermittent	New Pipe	3	217+53	218+01	147	0.04	-	-
	D-11	intermittent	Fill	4	231+00	231+00	30	0.01	-	-
	LN6C(1)-2	intermittent	New Pipe	4	231+77	231+97	125	0.02	-	-
	LN6C(1)	intermittent	Fill	4	232+23	232+46	126	0.02	-	-
	D-12	intermittent	Fill	5	235+60	235+75	63	0.01	-	-
	LN6C2	intermittent	New Pipe	5	238+91	239+22	135	0.03	-	-
	LN6D1(1)-1	intermittent	Drainage Pipe Outlet	6	246+08	246+28	25	0.01	-	-
	LN6D1-3	intermittent	Temporary Stream Crossing	7	253+29	254+95	-	-	16	0.01
	LN6D	intermittent	Fill	8	258+60	259+15	95	0.01	-	-
	LN6D1(4)	intermittent	Fill	8	262+06	262+85	146	0.02	-	-
	MC1A	intermittent	New Pipe	10	25+90	26+93	274	0.06	-	-
	MC1A(W)	intermittent	Fill	10	26+10	26+95	82	0.01	-	-
	MC1A(X)	intermittent	Fill	10	24+50	26+00	165	0.02	-	-
	MC1A(V)	intermittent	Fill	10	24+68	26+22	184	0.01	-	-
	D-15	intermittent	Cul-de-sac at Detweiler Road	11	19+25	20+70	145	0.01	-	-
	MC1A6	perennial	Temporary Stream Crossing	11	39+75	40+25	-	-	35	0.01
	D-16	intermittent	Fill	12	54+00	55+60	235	0.01	-	-
	D-17	intermittent	Fill	12, 16, 17, 18, 19	95+00	115+50	2035	0.09	-	-
	D-18	intermittent	Fill	12, 16, 17, 18, 19	95+00	115+50	2132	0.10	-	-
	D-20	intermittent	New Pipe	13	66+50	67+00	60	0.01	-	-
	NT1E1-1	intermittent	New Pipe	14	74+73	76+50	199	0.05	-	-
	D-21	intermittent	Fill	15	17+00	22+50	550	0.05	-	-
	NT1E1-2	intermittent	New Pipe	14	76+50	77+63	195	0.05	-	-
						Section 711 Subtotal	**7148**		**51**	
721	D-22	intermittent	Earth Berm		102+00	104+50	222	0.01	-	-
	D-23	intermittent	Earth Berm/SWM Basin/Parkway Fill		103+60	104+00	213	0.01	-	-
	NT1C	intermittent	Temporary Impacts During Construction		105+00	105+75	-	-	200	0.05
	NT1C3	intermittent	Fill for Parkway		105+00	105+00	83	0.01	-	-
	D-24	intermittent	Earth Berm/SWM Basin/Parkway Fill		118+00	120+15	323	0.01	-	-
	D-25	intermittent	Earth Berm/Parkway		122+00	122+00	178	<0.01	-	-
	D-27	intermittent	Fill for Parkway		123+30	123+45	42	<0.01	-	-
	D-29	intermittent	Bristol Road Widening		18+00	19+60	204	0.01	-	-
	MS1	perennial	Abutments		150+00	151+60	124	<0.01	126	0.41
	MS1-3	intermittent	Temporary Impacts During Construction		152+00	153+00	-	-	161	0.03
	NT4A	perennial	Temporary Impacts During Construction		181+00	181+25	-	-	130	0.06
	D-33	intermittent	Fill for Parkway		209+00	209+50	118	0.01	-	-
	NT5A	perennial	Temporary Impacts During Construction		228+00	233+00	-	-	603	0.13
	D-35	intermittent	Ramp Q Fill		10+25	15+70	534	0.02	-	-
	D-35A	intermittent	Ramp Q Fill		12+50	12+70	57	<0.01	-	-
	D-35B	intermittent	Ramp Q Fill		13+40	13+40	104	<0.01	-	-
	D-35C	intermittent	Ramp Q Fill		15+60	15+70	21	<0.01	-	-
	D-36	intermittent	Ramp Q Fill		15+70	16+20	221	0.01	-	-
						Section 721 Subtotal	**2444**		**1220**	

Table 2. Summary of Wetland Impacts.

Design Section	Wetland System ID	Wetland Classification	Impacts Related To:	Plan Sheet No.	Station (approx)		Permanent Impacts	Temporary Impacts
					Begin	End	(acres)	(acres)
701	R-1	PEM	C/F for Parkway and SWM Basin	1	109+18	110+98	0.27	-
	LN1A(1)	PFO	Fill for Parkway and SUP	1	112+08	114+10	0.16	0.03
	LN1A(2)	PFO	Fill for Parkway	2	132+11	132+40	<0.01	-
	LN2A(1)	PFO/PSS	Fill for Parkway and SUP - Bridge 2	4	146+85	147+05	0.03	-
	LN3B1(2)	PEM/PFO	Fill for Parkway - Culvert 4	5	165+58	166+61	0.29	0.05
	S1W1	PEM	Fill for parkway and excavation for SWM Basin	6	174+83	178+05	0.24	-
	S1W2	PEM	C/F for Parkway	6	175+00	176+25	0.17	-
	S1W3	PEM	Cut for Parkway	6	178+36	178+78	0.01	-
	S1W4	PSS/PEM	Cut for Parkway	7	187+03	188+10	0.16	-
	LN3C1	PEM/PFO/PSS	Fill for Parkway - Culvert 5	7	188+94	191+20	0.43	0.11
	LN4B(A)	PFO/PSS/PEM	C/F for Parkway	8	200+50	201+90	0.35	-
						Section 701 Subtotal	**2.12**	**0.19**
711	LN4B(B)	PFO	Roadway Fill	2	203+74	205+18	0.17	-
	LN5B(1)	PFO	Roadway Fill	3	217+08	218+78	0.20	-
	LN5B(2)	PFO	Roadway Fill	3	219+73	221+67	0.28	-
	LN6C(1)	PFO	Roadway Fill	4	230+53	235+47	1.06	-
	LN6C(2)	PFO	Roadway Fill	5	236+62	239+37	0.18	-
	LN6D1(1)	PFO/PSS	Roadway Fill	6	246+11	247+32	0.07	-
	LN6D1(3)	PFO	Roadway Fill	7	252+54	256+87	0.22	0.06
	3LN6D	PFO/PEM	Roadway Fill	8	259+07	261+16	0.16	-
	2LN6D1(4)	PFO	Roadway Fill	8	262+15	262+47	0.01	-
	LN6D3(2)	PSS/PEM	Roadway Fill	9	270+40	273+34	0.25	-
	MC1A(2)	PFO	Roadway Fill	11	38+25	39+90	0.19	0.03
	NT1E	PFO	Roadway Fill	13	65+06	67+45	0.46	-
	NT1E1	PFO	Roadway Fill	14	74+02	78+64	0.80	-
						Section 711 Subtotal	**4.05**	**0.09**
721	NT1C	PFO	Fill for Parkway		104+40	105+50	0.14	0.14
	R-4	PEM	Fill for Parkway/Earth Berm/SWM Basin		119+00	120+75	0.11	0.03
	R-4A	PEM	Fill for Parkway/Earth Berm/SWM Basin		121+00	125+00	0.31	-
	R-4B	PEM	Bristol Road Widening		19+50	20+25	0.02	-
	MS-1	PFO	Abutments		152+40	154+15	0.03	0.48
	R-5	PFO	Fill for Parkway		154+80	156+30	0.07	-
	NT4A	PFO/PSS	Fill for Parkway		179+50	182+00	0.24	0.38
	NT5A	PFO/PEM	Fill for Parkway		227+50	234+50	0.50	1.84
						Section 721 Subtotal	**1.42**	**2.87**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	0202	7WM	1 OF 1
	WARRINGTON TOWNSHIP			

REVISION NUMBER	REVISIONS	BY	DATE



REPRINT: 10/08/07

LEGEND

1. PENNDOT RIGHT-OF-WAY
   - FEE SIMPLE = 34.3 HA (84.7 AC.)
   - EASEMENT = 1.8 HA (4.4 AC.)
2. WETLAND CREATION (ESTABLISHMENT) = 3.8 HA (9.5 AC.)
   (INCLUDING 3.68 AC. AT SITE KR-A + 5.61 AC. AT SITE KR-C)
3. WETLAND RESTORATION = 2.2 HA (5.4 AC.)
   (INCLUDING 5.06 AC. + 0.32 AC. AT SITES KR-A AND KR-B)
4. WETLAND ENHANCEMENT = 0.0 HA (0.0 AC.)
5. PRESERVATION/PROTECTION
   - EXISTING WETLANDS = 12.4 HA. (30.8 AC.)
   - EXISTING STREAMS/CHANNELS = 1725 M (5660 LF)
6. BUFFERS
   - UPLAND PRESERVATION = 10.6 HA. (26.3 AC.)
   - RIPARIAN BUFFER = 6.9 HA (17.0 AC.)

   (BASED ON 40M [130'])
7. UPLAND ENHANCEMENT (FOR TERRESTRIAL HABITAT)
   - EVERGREEN MASSING = 0.23 HA (0.57 AC.)
   - SHRUB MASSING = 0.11 HA (0.27 AC.)
   - WARM SEASON GRASSLAND = 0.66 HA (1.62 AC.)

RECENT DEVELOPMENT (SINCE 2001)

EXISTING TRAIL (PRIVATE PROPERTY)

POTENTIAL FUTURE TRAIL (BY OTHERS)
ASSUME 3M (10FT) WIDE RIGHT-OF-WAY PASSIVE TRAIL
- OPTION A
- OPTION B

	OPTION A	OPTION B
EXISTING WETLAND IMPACTS	= 0.0 HA (0.02 AC)	0.02 HA (0.05 AC)
LENGTH OF TRAIL WITHIN RIPARIAN BUFFER	= 244 M (800 LF)	315 (1035 LF)

0 25 50 100
SCALE IN METERS

KANSAS ROAD MITIGATION SITE
BUCKS COUNTY
COMPENSATORY MITIGATION PLAN (04/27/07)